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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,724

09/30/2003

C. Brian Atkins

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EXAMINER

HAILU, TADESSE

ART UNIT

PAPER NUMBER

2173

NOTIFICATION DATE

DELIVERY MODE

06/03/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/675,724	Applicant(s) ATKINS, C. BRIAN	
	Examiner TADEESE HAILU	Art Unit 2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7 is/are allowed.
- 6) ☒ Claim(s) 8 and 15 is/are rejected.
- 7) ☒ Claim(s) 9-14 and 16-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to the amendment of the above identified application filed March 11, 2009. The amendment contains 21 claims (1 through 21). The amendment has been entered and examined herein below.
2. The amendment overcomes the Claim Rejections under 35 USC § 112.
3. Arguments with respects to independent claims 1 and 3 and their respective dependent claims are persuasive, as a result the claims are allowed.
4. Arguments with respects to independent claims 8 and 15 are not persuasive; as a result the claims are still rejected.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldenberg ("Automatic Layout of Variable-content Print Data", August 2002) and Geigel et al ("Geigel", US 2002/0122067 A1).

Regarding claims 8 and 15, Goldenberg teaches a method for producing a layout of objects (images) while maintaining aspect ratios on a page (layout print objects in a space, section 3 "The program", page 11), comprising: generating different tree

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structures each having at least one node and at least one leaf (slicing tree in Fig. 2, section 3.2.1), wherein each node corresponds to a respective partition of the space and each leaf defines a relative location of a respective one of the objects on the page (print object); for each of the tree structures, characterizing a respective bounding box for each node in the tree structure (layout space reserved for a given tree), wherein each bounding box for each node includes all of the objects in any sub-tree below the respective node; and for each of the tree structures, assigning regions within the space for each node in the tree structure in accordance with the bounding box associated with the node (assigning layout regions for each objects) (Fig. 14, page 26), determining respective score for the tree structures, selecting tree structures based on the determined scores and producing a layout of the objects on the page based on the selected tree structure (section 3.2.1). Goldenberg does not teach for each of the nodes in the binary tree structure determining a respective aspect ratio and a respective area of a respective bounding box containing all bounding boxes respectively determined for all nodes and leaves branching from the node. This feature is taught by Geigel. Geigel teaches a system for automatic layout of images similar to that of Goldenberg ([0009]). Geigel further teaches for each of the nodes in the binary tree structure determining a respective aspect ratio and a respective area of a respective bounding box containing all bounding boxes respectively determined for all nodes and leaves branching from the node (Abstract and paragraph 119). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was

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made to apply Geigel's teaching in Goldenberg's system to enhance the efficiency in layout arrangement.

Allowable Subject Matter

7. Claims 1-7 are allowed.
8. Claims 9-14 and 16-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments filed March 11, 2009 have been fully considered but they are not persuasive. The applicant argued that the combined art does not teach *the operation of the page creator module involves "for each of the nodes in the binary tree structure, determining a respective aspect ratio and a respective area of a respective bounding box containing all bounding boxes respectively determined for all nodes and leaves branching from the node."* The examiner believes that the Image Placement Module utilizes a second genetic engine, which evolves various criteria to generate page layouts genetic structures (e.g., binary tree structure). These structures define the location (respective area), scale (aspect ratio), and rotation of images placed on a given page (see at least Abstract).

CONCLUSION

10. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. **Venable (2002/0051208)**, the documents cited therein teach generally layout techniques for digital images and, more particularly, to an automatic image layout technique which allows a collection of digital images to be formatted in a single contact sheet-like layout for rapid viewing and cataloging.

11. Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and Figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

12. Information regarding the status of an application may be obtained from the patent application information retrieval (PAIR) system. Status information for published application may be obtained from either Private –PAIR or Public-PAIR. Status information for unpublished applications is available through Private-PAIR only. For more information about the PAIR system, please see pair-direct.uspto.gov web site. Should you have questions regarding access to the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **Tadesse Hailu**, whose telephone number is (571) 272-4051. The Examiner can normally be reached on M-F from 10:30 – 7:00 ET. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kieu Vu, can be reached at (571) 272-4057 Art Unit 2173.

/Tadesse Hailu/
Primary Examiner, Art Unit 2173